A Measure of the Imbalance in U.S. Budget Policy. The underlying budgetary imbalances, though daunting, are much smaller than the previous projections make them appear. Those projections are so severe in part because of the compounding effects of interest: the government would be borrowing to cover the shortfall between revenues and spending--and then borrowing again to pay the interest on that debt. Because even a relatively small imbalance between revenues and outlays can be significantly amplified by escalating interest costs, the projections do not necessarily imply that resolving the nation's budgetary problems would require huge changes in spending or revenues.

To estimate the size of the budgetary imbalance, CBO used a standard measure for assessing the sustainability of a government's policies.[9] That measure is based on a hypothetical experiment: determining by how much rates of taxation would have to be permanently raised today to prevent the debt from exceeding its current percentage of GDP for the foreseeable future. (Larger imbalances require higher tax rates; the imbalances could also be measured as the size of the spending cuts that would be needed.) The experiment is hypothetical because it would be impractical to control the growth of the debt with a sudden, major change in tax rates. Nevertheless, it provides a rough measure of the size of the "hole" in the budget and is similar in spirit to other summary measures of budgetary imbalances. For example, the trustees of the Social Security trust funds routinely estimate by how much payroll taxes would have to be raised to ensure a sufficient balance in the funds in 2070 to meet the following year's projected expenditures. Generational accounting (described below) shows how high taxes would have to be on the lifetime incomes of future generations to ensure the long-run solvency of the government.

Using the sustainability measure, the budgetary imbalances are significant but manageable. Assuming that discretionary spending grew with the economy, CBO estimated that permanently increasing revenues by 5 percent of GDP would keep the debt (as a percentage of GDP) at or below its current level for the foreseeable future. Since revenues are now about 20 percent of GDP, that amount represents a tax hike of about 25 percent. If discretionary spending was assumed to grow only with the rate of inflation, taxes would have to rise by about 3 percent of GDP, or about 15 percent of current revenues.

The Sensitivity of the Results to Changes in Key Assumptions

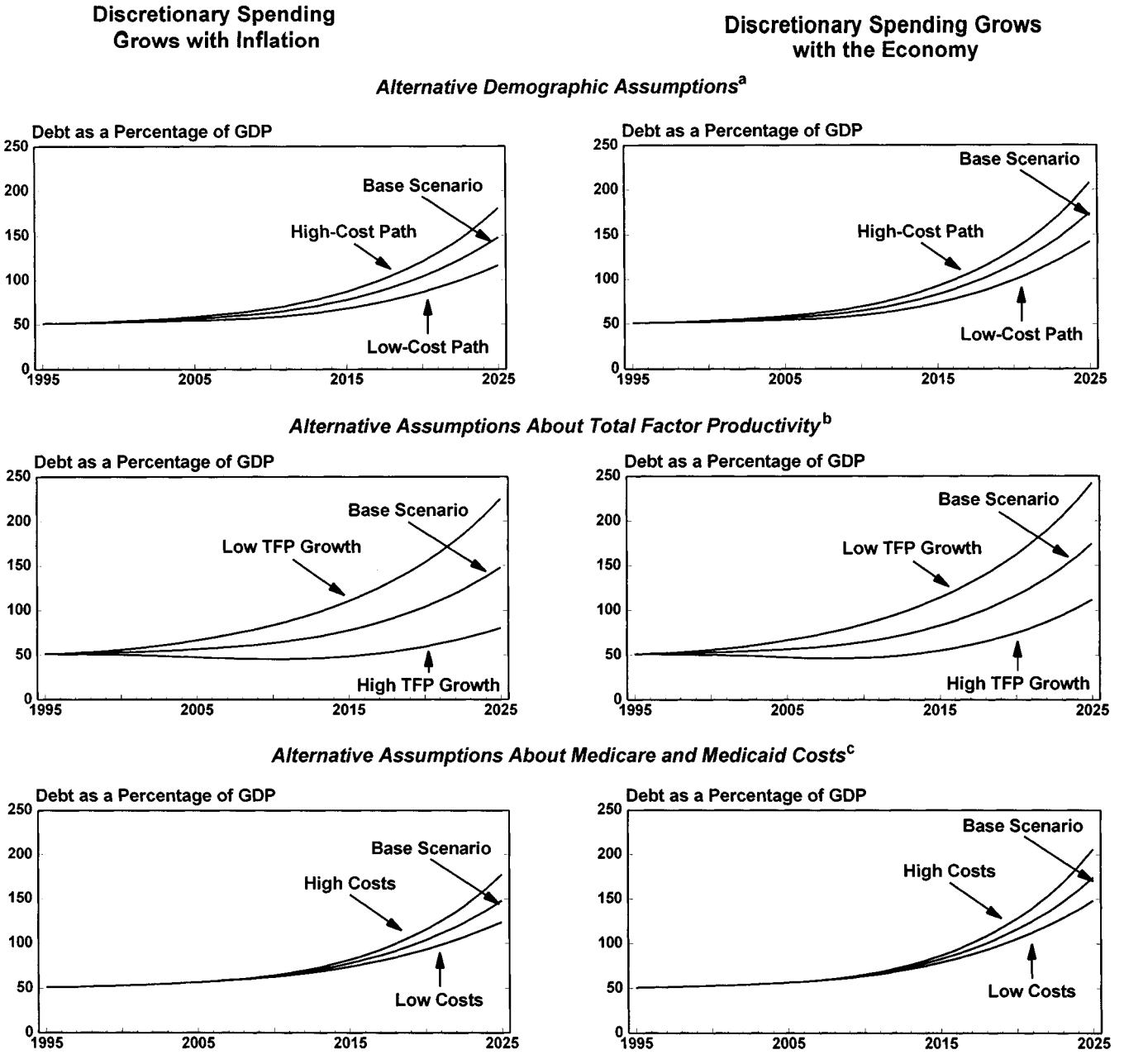
The long-term projections presented in the previous section are highly uncertain. They depend critically on assumptions about birth and death rates, immigration, marriage rates, labor force participation, productivity growth, interest rates, and the general structure of the economy. Changes in those assumptions would affect the quantitative results that CBO found; choosing more optimistic assumptions would significantly delay the projected emergence of serious trouble. But trouble eventually shows up, even when highly optimistic assumptions are used. Thus, the basic qualitative findings of this chapter appear to stand up despite the huge uncertainties involved in making long-range projections.

Demographic Assumptions. The budget picture would be brighter if the labor force grew more quickly or the population of retirees grew more slowly. The base scenario relied on the population assumptions of the intermediate-cost projections prepared by the trustees of the OASDI trust funds. (The trustees prepare three sets, based on low-cost, intermediate-cost, and high-cost population projections.) But the federal debt would still grow out of control even under the trustees' most favorable (the low-cost) assumption about population (see Figure 4-4). Moreover, reasonable increases in immigration or fertility rates or in the age of retirement probably would not keep the government from having to deal with long-term budgetary problems.

Assumptions about Capital. The stock of capital in the United States could grow faster than the projections assume, which would also improve the economic outlook, but faster growth would require either larger inflows of funds from abroad or higher rates of saving at home--neither of which seems particularly

9. Olivier Blanchard and others, "The Sustainability of Fiscal Policy: New Answers to an Old Question," *OECD Economic Studies*, no. 15 (Autumn 1990).

Figure 4-4.
Projections of Federal Debt, Using Alternative Assumptions About Demographics, Productivity, and Health Costs (As a percentage of GDP)



SOURCE: Congressional Budget Office.

a. In the low-cost projection, population cohorts grow according to the low-cost path projected by the trustees of the Old-Age, Survivors, and Disability Insurance (OASDI) program. In the high-cost projection, population cohorts grow according to the high-cost path projected by the OASDI trustees.

b. In the high-growth projection, productivity is assumed to grow 0.5 percent faster each year than in the base scenario. In the low-growth projection, productivity is assumed to grow 0.5 percent slower each year than in the base scenario.

c. In the low-cost projection, spending for each enrollee in Medicare and Medicaid of a given age and sex is assumed to grow 1 percentage point slower than in the base scenario after 2006. In the high-cost projection, spending per enrollee is assumed to grow 1 percentage point faster than in the base scenario after 2006.

likely or, indeed, capable of improving things much. Although inflows of funds from abroad would increase the capital stock, they would do little to improve the nation's economic income after the interest and dividends were paid on those inflows. Private saving might increase more than CBO has projected, but the projections already assume a sizable response--gross private saving increases from 15 percent of GDP in 1995 to 35 percent in 2030 in the base scenario with economic feedbacks and discretionary programs growing with the economy.[10] A larger reaction does not seem especially reasonable.

Total Factor Productivity. Total factor productivity might also grow faster than CBO has assumed, but that, too, would not fundamentally alter CBO's conclusions. To be sure, the growth of TFP has varied significantly over the post-World War II period: it grew at an average annual rate of 1.4 percent between 1950 and 1973, but since 1973, it has declined slightly on average. Yet even if productivity grew 0.5 percent faster each year than the base scenario assumes, the nation would still face significant budgetary imbalances in the long run. Moreover, bad luck is always possible, and if TFP grew 0.5 percent slower each year than in the base scenario, the budgetary imbalances would be worse.

A detailed statistical accounting of the uncertainty in the assumptions about productivity and population does not overturn those simple findings. To the contrary, that analysis suggests that the chances are low that the nation could grow out of its long-term budgetary problems with favorable developments in productivity or demographics (see Box 4-2).

Interest Rates. The budget outlook deteriorates quickly in CBO's projections when economic feedbacks are included, in part because mounting debts push up interest rates and debt-service costs (see Figure 4-3 on page 82). However, rates could rise much more quickly than projected. For example, CBO assumed that interest rates on government debt would move point for point with increases in the real return from capital, despite soaring levels of federal debt that should cause investors to demand an additional risk premium for holding government securities. Moreover, although CBO's calculations show long-term rates rising with contemporaneous changes in short-term rates, they do not allow for any anticipation by the markets of the worsening of the budget picture. Incorporating such expectations would further accelerate the projected explosion in the budget because federal interest costs would climb even faster.

Health Care Costs. In its base scenario, CBO assumed that the rate of growth of health care expenditures for each enrollee of a given age and sex would gradually decline to equal the rate of advance of hourly wages in 2020 and would grow at that rate thereafter. However, if expenditures for medical care grew faster than CBO has assumed, the budget outlook would be worse. For example, if medical care expenditures per beneficiary after 2006 grew faster than the base scenario assumed by 1 percentage point, federal debt would rise to more than 300 percent of GDP in 2030 (if discretionary spending grew with the economy). Moreover, even if those expenditures grew more slowly than in the base scenario by 1 percentage point--which seems unlikely without any changes to policy--the long-term budget outlook would still be bleak (see Figure 4-4).

Thus, the basic conclusion that the nation's current budget policy is unsustainable holds true despite the uncertainty that inevitably comes from projecting health care costs so far forward. Because of the federal government's role in supporting elderly people, the aging of the baby-boom generation will place enormous pressures on the budget. Dealing with those inevitable demographic developments will require some changes in current policy to keep the government solvent and the economy healthy.

Comparison with Other Studies

CBO is not alone in raising concerns about the long-term implications of the current set of commitments that the federal government has implicitly made with its budget policies. Several other organizations and academic analysts have voiced similar warnings.

10. Gross private saving consists of personal saving, undistributed corporate profits, and the consumption of corporate and noncorporate fixed capital. In 1995, personal saving constituted 3.3 percent of GDP, undistributed profits were 2.1 percent, and capital consumption was 9.4 percent.

Box 4-2.
Statistical Evaluation of Alternative Assumptions About Population and Productivity

The projections presented in Figure 4-4 account for only some of the potential variations in demographics and total factor productivity (TFP). To provide a richer range of possibilities, the Congressional Budget Office used statistical models that generated 750 alternative assumptions about the U.S. population and TFP.[1] The models were based on the historical behavior of those two variables, and the range of the alternatives reflected the likelihood that the various periods of U.S. history would repeat themselves. Thus, the alternatives explicitly incorporate the chance that a period of exceptional prosperity, such as the one the nation enjoyed in the three decades after World War II, will come again.

From those simulations, CBO generated a distribution of alternative paths for the budget and the economy. For illustrative purposes, CBO selected high- and low-debt alternatives so that two-thirds of the 750 simulations lay between the two paths. That spread represents a common measure of uncertainty. The slower the growth of TFP and the labor force, and the faster the growth of the retiree population, the higher would be the ratio of debt to gross domestic product (GDP).

The main conclusions of this chapter survive even in the face of the full uncertainty that accompanies assumptions about the growth of the population and of productivity. In the pessimistic high-debt path, federal debt exceeds 200 percent of gross national product (GNP) as early as 2019, regardless of the assumption about discretionary spending. In the optimistic low-debt path, the point when the debt exceeds 200 percent of GNP is delayed only to 2037. All paths show federal debt eventually growing out of control.

The simulations can also be used to estimate the likelihood that the nation could grow out of its debt problems without having to take action on the budget. Based on the 750 simulations, there is only about a 35 percent chance that the ratio of debt to GDP will be less than 200 percent by 2030 (see the table below). Those probabilities drop below 10 percent when the horizon is extended to 2050. Moreover, the chance that real GNP per capita will have entered a persistent downward trend is 51 percent in 2030 and above 90 percent by 2050.

1. The alternative population assumptions were generously provided by Ronald D. Lee of the University of California, Berkeley, and Shripad Tuljapurkar of Stanford University. See Ronald D. Lee and Shripad Tuljapurkar, "Stochastic Population Forecasts for the United States: Beyond High, Medium, and Low," *Journal of the American Statistical Association*, vol. 89, no. 248 (December 1994), pp. 1175-1189.

Estimated Probabilities of Adverse Outcomes Using the Assumptions of the Base Scenario, Calendar Years 1995-2050 (In percent)

	1995	2000	2005	2010	2015	2020	2025	2030	2050
Federal Debt Rises Above 200 Percent of GDP	0	0	0	0	3	15	40	64	94
Real GNP per Capita Declines for Three Consecutive Years	0	6	5	5	10	16	30	51	92

SOURCE: Congressional Budget Office.

NOTE: The estimates assume that discretionary spending grows with inflation.

Some, like CBO, have used the traditional approach of extending projections of spending and revenues and examining their impact on the federal debt over the next few decades. Others have used a new method called generational accounting. Yet despite differences in technique, all of the studies have concluded that U.S. budget policy cannot be sustained indefinitely.

Traditional Approach. Three prominent studies belong in this category.[11] Since 1992, the General Accounting Office (GAO) has presented results showing that, if left unchecked, the federal budget deficit could grow to over 23 percent of GDP by 2025. GAO's model incorporates some economic feedbacks between the deficit and the economy, although it holds interest rates constant.

Last year, the Bipartisan Commission on Entitlement and Tax Reform weighed in with another alarm. The commission saw growing imbalances between spending and revenues in the early decades of the 21st century unless changes were made to federal entitlement programs. Using a model without economic feedbacks, the commission projected budget deficits in excess of 15 percent of GDP by 2030. Its projections assumed that discretionary spending grew with the economy.

This year, the Administration released its long-term budget projections. Its calculations showed that the deficit would climb to 6 percent of GDP by fiscal year 2020 and to 12 percent in 2030 unless policies were changed. In its base scenario, the Administration assumed that discretionary spending would grow only with inflation, and it developed its base projections without economic feedbacks. (The Administration also projected the long-term implications of the President's policy to balance the budget.)

Compared with CBO's projections without economic feedbacks, the Administration projected that the deficit under its base scenario would be somewhat smaller in the early years and slightly larger by 2050. But the differences are not substantial; they are primarily due to the Administration's starting its long-term projections in 2006 with a more favorable outlook for the deficit than CBO expects. Under current policy, the Administration projected that the budget deficit would reach 2 percent of GDP in fiscal year 2005, whereas CBO projected a budget deficit of 3.3 percent.

Generational Accounting. This alternative approach was developed by Alan Auerbach, Jagadeesh Gokhale, and Laurence Kotlikoff. It examines the distribution of net taxes among people of various generations, including those not yet born.[12] (Net taxes are taxes minus transfer payments.) Among other things, generational accounting answers the following hypothetical question: at what rate would the government have to levy net taxes on the lifetime income of people not yet born in order to remain solvent?

The approach assumes that people who are alive today (from the old to those just born) continue to receive all the benefits from Social Security, Medicare, Medicaid, and other programs that have been promised to them and continue to pay taxes at currently prevailing rates. A higher tax rate must then be levied on future generations to keep the government solvent. Like long-term projections, generational accounting does not predict what will actually happen; it only indicates what would happen if policy did not change.

With respect to the generations alive today, the calculations of Auerbach, Gokhale, and Kotlikoff show that lifetime net tax rates increased somewhat between the generation born in 1900 and that born in 1950; however, since 1950, they have remained about the same (see Table 4-6).[13] Those researchers find, however, that future generations will have a considerable tab to pick up. Indeed, according to their calculations, those generations would face a lifetime net tax rate of 84 percent, compared with the

11. General Accounting Office, *Budget Policy* and *The Deficit and the Economy*; Bipartisan Commission on Entitlement and Tax Reform, *Final Report to the President* (January 1995); Office of Management and Budget, *Budget of the United States Government*.

12. Alan J. Auerbach, Jagadeesh Gokhale, and Laurence J. Kotlikoff, "Generational Accounts: A Meaningful Alternative to Deficit Accounting," in David Bradford, ed., *Tax Policy and the Economy*, vol. 5 (Cambridge, Mass.: MIT Press, 1991), pp. 55-110.

13. A lifetime net tax rate is the present value at birth of lifetime net taxes as a percentage of the present value at birth of lifetime labor income.

Table 4-6.
Estimated Lifetime Net Tax Rates in the United States by Year of Birth (In percent)

Year of Birth	Net Tax Rate[a]
1900	24
1910	27
1920	29
1930	30
1940	31
1950	33
1960	34
1970	34
1980	34
1990	34
1993	34
Future Generations[b]	84

SOURCE: Alan J. Auerbach, Jagadeesh Gokhale, and Laurence J. Kotlikoff, "Restoring Generational Balance in U.S. Fiscal Policy: What Will It Take?" *Review,* Federal Reserve Bank of Cleveland, vol. 31, no.1 (First Quarter 1995), pp. 2-12.

NOTES: The rates shown are for combined net taxes for all levels of government--federal, state, and local. The estimates assume a real discount rate of 6 percent, a prospective annual rate of growth in productivity of 1.2 percent, and the midrange path of population growth used by the Social Security Administration in its 1994 annual report.

The values in the table reflect the implications of generational accounts as constructed by Auerbach, Gokhale, and Kotlikoff and do not necessarily represent the views of the Congressional Budget Office.

a. A lifetime net tax rate is the present value at birth of lifetime net taxes as a percentage of the present value at birth of lifetime labor income. Net taxes are taxes less transfers.

b. Future generations are all those born in 1994 and thereafter.

34 percent rate facing people born in 1993. To impose so large a burden on future generations, the government would have to increase their taxes and cut their transfers substantially--another way of saying that current U.S. budget policy is unsustainable.

The results from generational accounting depend on uncertain and arguable assumptions. Consequently, they must be viewed with as much or even more caution than the results of the long-term budget model.[14] Still, generational accounting's qualitative conclusions also hold under a wide range of alternative assumptions.

14. Congressional Budget Office, *Who Pays and When? An Assessment of Generational Accounting* (November 1995).

Sustainable Budget Strategies

To avoid the adverse economic consequences laid out above, the ratio of debt to GDP must be brought under control. This section considers two possible budget strategies that would meet that goal: the first permanently balances the budget by 2002; the second holds the ratio of debt to GDP roughly at its current level. Both strategies are sustainable because they prevent the debt from ever growing faster than the economy. Other approaches are possible, but those two examples illustrate some of the implications such strategies have for the budget and for the nation's economic outlook.[15]

A budget that was permanently balanced would freeze the level of federal debt and continuously diminish the ratio of debt to GDP (see Table 4-7).[16] As the economy grew, the ratio of debt to GDP would slowly decline from 51 percent of GDP in 1995 to 6 percent in 2050. Over that period, the deleterious effects of the debt on interest rates and economic growth would gradually disappear. A balanced budget would also put the United States back on its historical path of declining debt as a share of GDP during times of peace and prosperity. However, a ratio of debt to income as low as 6 percent would be unusual in modern history; the debt ratio has not been so low since America's entry into World War I.

Permanently balancing the budget is not the only strategy that could prevent catastrophic problems for the U.S. economy. The worst aspects of the base sce-

15. Another strategy is to balance all categories of the budget except the Social Security accounts, which would imply a surplus in the total budget as long as the total income (including interest) of the trust funds exceeded their outgo (as is expected to be the case until about 2020). That strategy would offer greater long-run payoffs than those from just balancing the total budget but would require larger short-run sacrifices.

16. Although the model technically assumes that the budget is balanced each year, similar results would be seen if the government allowed the budget to move into deficit during recessions--provided that the budget moved into surplus during expansions and was balanced on average.

nario could be avoided if budget policies were altered so that the debt did not always grow faster than GDP. One way to achieve that goal would be to stabilize the ratio of debt to GDP at its current level of roughly 50 percent. Because the national debt would continue to grow, the government would still have a budget deficit--but it would not be growing relative to the economy. Instead, the deficit would eventually stabilize at about 1.6 percent of GDP.

Table 4-7.
Projections of the Deficit and Debt Held by the Public Under Alternative Budget Strategies, Calendar Years 1995-2050 (As a percentage of GDP)

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Permanently Balance the Budget												
Primary Deficit[a]	-1.3	-1.8	-2.1	-1.7	-1.3	-1.1	-0.9	-0.7	-0.6	-0.5	-0.4	-0.3
Interest on the Debt	3.5	2.8	2.1	1.7	1.3	1.1	0.9	0.7	0.6	0.5	0.4	0.3
NIPA Deficit	2.2	1.0	0	0	0	0	0	0	0	0	0	0
Debt Held by the Public	51	49	38	30	25	20	17	14	11	9	8	6
Stabilize the Ratio of Debt to GDP												
Primary Deficit[a]	-1.3	-1.0	-0.7	-0.8	-1.0	-1.0	-1.0	-1.0	-0.9	-1.0	-1.0	-1.0
Interest on the Debt	3.5	3.1	2.9	2.9	2.9	2.8	2.7	2.6	2.7	2.7	2.7	2.7
NIPA Deficit	2.2	2.1	2.2	2.1	1.9	1.7	1.7	1.7	1.7	1.7	1.7	1.6
Debt Held by the Public	51	51	51	51	52	52	52	52	52	52	52	52
Continue with the Base Scenario[b]												
Primary Deficit[a]	-1.3	-0.6	-0.2	0.8	2.3	3.8	5.3	6.2	n.c.	n.c.	n.c.	n.c.
Interest on the Debt	3.5	3.3	3.4	3.9	5.1	7.7	13.5	31.0	n.c.	n.c.	n.c.	n.c.
NIPA Deficit	2.2	2.7	3.2	4.6	7.3	11.5	18.8	37.2	n.c.	n.c.	n.c.	n.c.
Debt Held by the Public	51	53	57	65	83	116	174	293	n.c.	n.c.	n.c.	n.c.

SOURCE: Congressional Budget Office.

NOTES: The projections include economic feedbacks (deficits push up interest rates and lower the rate of economic growth).

NIPA = national income and product account; n.c. = not computable (debt would exceed levels that the economy could reasonably support).

a. The primary deficit is revenues minus noninterest spending. Negative numbers indicate a budget surplus.

b. The base scenario assumes that discretionary spending grows with the economy.

Setting goals for the ratio of debt to GDP is not a new idea. The 15 member nations of the European Union have already pledged to reduce their debt-to-income and deficit-to-income ratios. Goals are specified by the Maastricht Treaty, which aims to create a monetary union with a single European currency. With some exceptions, the treaty requires that a nation wishing to join the union must bring its combined debt from all levels of government to 60 percent of GDP or less and its combined deficit to 3 percent of GDP or less.

Implications for the Economy

Compared with the base scenario, the long-term economic outlook would be significantly brighter if policymakers either balanced the budget permanently or stabilized the debt at about 50 percent of GDP. By 2025, gross national product per capita would be between 10 percent and 15 percent higher than in the base scenario, and that gap would grow substantially in the years thereafter (see Table 4-8). Of the two strategies, the balanced budget would provide the greater long-term economic gains, but at the cost of more near-term sacrifice.

The economic benefits of stabilizing the debt-to-income ratio are almost as large as those of balancing the budget. Stabilization implies that by 2025, real GNP would be only about 2 percentage points less than GNP under the balanced budget. The smaller GNP stems from the difference in what happens to the deficit: stabilizing the ratio of debt to GDP does not eliminate it but merely controls its growth. Thus, some capital investment is still crowded out.

Implications for the Budget

Permanently balancing the budget or keeping the ratio of debt to income steady would require significant changes in government spending and revenues. Those changes could be achieved, but they would involve paring entitlement benefits for elderly people, sharply reducing other spending, or increasing taxes.

Interest Costs. Both budget strategies would significantly reduce the amount required to service the debt compared with the base scenario. However, interest costs would decline more with a balanced budget than with a steady ratio of debt to income.

Table 4-8.
Projections of Real GNP per Capita Under Alternative Budget Strategies

	1995	2000	2005	2010	2015	2020	2025	2030
				In Chained 1992 Dollars per Capita				
Permanently Balance the Budget	24,800	26,300	28,400	30,400	31,900	33,100	34,200	35,500
Stabilize the Ratio of Debt to GDP	24,800	26,300	28,100	30,000	31,400	32,600	33,600	34,900
Continue with the Base Scenario[a]	24,800	26,200	28,000	29,700	30,600	30,900	30,400	28,500
				Percentage Above Real GNP per Capita in the Base Scenario				
Permanently Balance the Budget	0	0	1	3	4	7	12	25
Stabilize the Ratio of Debt to GDP	0	0	0	1	3	5	10	23

SOURCE: Congressional Budget Office.

a. The base scenario assumes that discretionary spending grows with the economy.

With a balanced budget, the cost of interest on the debt would eventually decline to insignificance as a share of GDP. In CBO's projections, that cost drops from 3.5 percent of GDP in 1995 to 0.3 percent in 2050 (see Table 4-7 on page 89). The decline comes from fixing the debt in dollar terms after 2002 and from having interest rates on government debt fall relative to the rate of growth of the economy. By contrast, when the ratio of debt to income is kept constant, interest costs stabilize at about 2.7 percent of GDP.

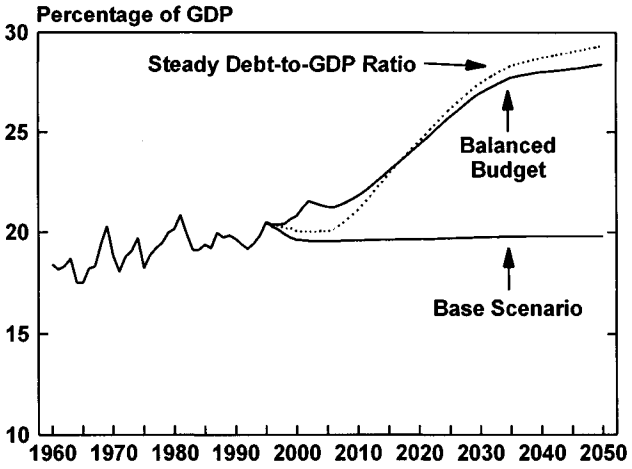
The pattern for interest payments has implications for the rest of the budget--the so-called primary budget. To maintain balance, the primary budget must show a surplus that exactly matches the interest payments on the debt.[17] Thus, as interest payments declined over time, the surplus required in the rest of the budget would also fall. The projections show that the primary surplus required under a balanced budget would be 2.1 percent of GDP in 2005 but would drop to 0.3 percent by 2050. By contrast, if the ratio of debt to income was held steady, the required surplus in the rest of the budget would not decline over time but would nearly stabilize at about 1.0 percent of GDP.

Comparing the primary surpluses required under the two strategies shows, in a rough form, how much taxes and spending would have to be changed. Before 2022, the primary surplus would have to be larger with a balanced budget. As a result, during those early years, the government would have to make larger cuts in the growth of spending or impose higher taxes. After 2022, however, the situation would be reversed. The primary surplus would actually be somewhat smaller under the balanced budget because interest payments would be lower. The government would then be making slightly smaller cuts in spending or imposing modestly smaller increases in taxes.

Those results may seem surprising at first because they appear to be at odds with the common perception that deficit spending is an "easier" policy than a balanced budget. That view is certainly correct for the short run, when differences in fiscal policy have little effect on federal interest costs. But over periods as long as 30 years, a deficit policy eventually carries much higher interest costs than a balanced budget policy--and those additional costs ultimately have to be financed by cutting the growth of spending or raising taxes. Intuitively, deficit spending expands current consumption above what would otherwise have been possible. But that additional consumption is achieved only by sacrificing some future consumption through future tax hikes and spending cuts.

Required Policy Changes. Both budget strategies would require significant changes in spending and revenues. If the budget was balanced (or the ratio of debt to GDP stabilized) through tax increases alone, those increases would be small in the early years but would grow considerably as the baby boomers began to retire (see Figure 4-5). To keep the budget balanced, federal revenues would have to rise from 20

Figure 4-5.
Projections of Receipts When Tax Increases Alone Are Used to Balance the Budget or Stabilize the Ratio of Debt to GDP

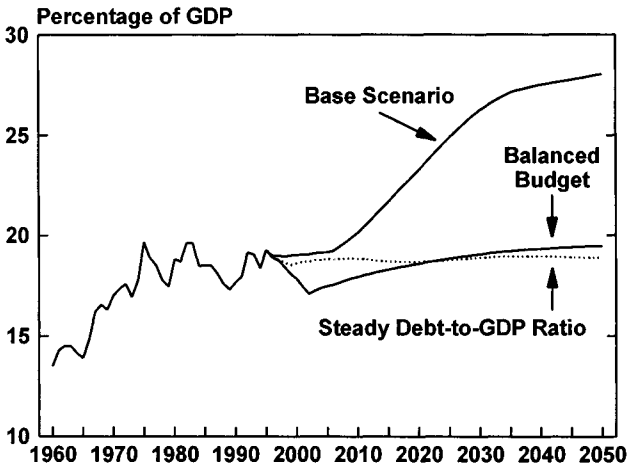


SOURCE: Congressional Budget Office.

NOTE: The balanced budget path assumes that the budget is balanced by 2002 and remains balanced thereafter. The path with the steady ratio of debt to gross domestic product assumes that the ratio is stabilized at its current level. The projections of the base scenario use the balanced budget economic assumptions. Receipts are as defined in the national income and product accounts.

17. Another way to think about the primary budget is that it shows all revenues and all spending for "programs" but not for interest on the debt. A primary surplus then means the amount of revenues in excess of outlays for programs.

Figure 4-6.
Projections of Noninterest Outlays When Spending Cuts Alone Are Used to Balance the Budget or Stabilize the Ratio of Debt to GDP



SOURCE: Congressional Budget Office.

NOTE: The balanced budget path assumes that the budget is balanced by 2002 and remains balanced thereafter. The path with the steady ratio of debt to gross domestic product assumes that the ratio is stabilized at its current level. The projections of the base scenario use the balanced budget economic assumptions. Noninterest outlays are as defined in the national income and product accounts.

percent of GDP in 1995 to about 28 percent in 2050.[18] Keeping the ratio of debt to income steady would require smaller tax increases at first than would balancing the budget, but the additional interest costs would eventually require slightly larger increases. Under the steady debt-to-income strategy, revenues would rise from 20 percent of GDP in 1995 to 29 percent in 2050. (That scenario does not describe a sudden tax increase such as the one mentioned earlier, but a gradual increase that is sufficient to keep the budget balanced.)

Substantial reductions in current commitments for spending would also be required if budgetary actions focused solely on the spending side of the ledger (see Figure 4-6). Projections using the base scenario with balanced budget economic assumptions show noninterest outlays increasing from 19 percent in 1995 to 28 percent in 2050.[19] To keep the budget balanced, noninterest spending would have to be cut sharply at first, and it would decline to 17 percent of GDP by 2002. But as interest costs fell, spending under a balanced budget could rise to slightly above 19 percent of GDP in 2050. By contrast, to keep the ratio of debt to GDP steady, noninterest spending would have to be held at about 19 percent of GDP throughout the projection period.

Neither strategy could be implemented by focusing solely on cutting the government's consumption of goods and services. (Government consumption consists largely of discretionary spending and excludes outlays for roads, military equipment, and other government investments.) Under either plan, the extent of the required changes in the budget would exceed total consumption by the federal government around 2020. That finding means that the long-term budgetary situation cannot be stabilized solely by limiting the growth of this category of spending. Stability also requires reductions in the growth of other spending categories or increases in taxes.

Examples of Two Policy Packages

The discussion so far has examined the implications of setting overall deficit targets for the budget and the economy. In developing a budget, however, the Congress must move beyond setting goals to making changes in specific laws. During the past year, both the Congress and the President advanced plans to balance the budget by 2002 and proposed a variety of other changes to revenues and spending, including caps on the rates of growth of Medicare and Medicaid. Those proposals raise a number of issues. Would balancing the budget by 2002 by itself solve the long-term budgetary problem? Or would additional policy changes be needed? And how would capping the growth of federal health programs affect the long-term economic and budget outlook? Although deep-seated uncertainties make it impossible to examine the precise long-term impacts of specific

18. Those estimates probably understate the actual size of the tax increase that would be needed because they do not account for the adverse impact that increasing marginal taxes would have on incentives to work and save.

19. Balanced budget economic assumptions are used here for the same reason that they are used in Chapter 2: they implicitly incorporate the fiscal dividend.

legislative initiatives, CBO's long-range model can provide a rough assessment of how changes in policy might affect the budget over the next several decades.

To address those issues, CBO examined two possible packages for reducing the deficit. The first would balance the budget by 2002 by making a series of one-time changes to spending and revenues--but it would not alter the underlying pressures that cause spending to increase after 2006. That approach deals directly with the question of whether simply balancing the budget in the near term will solve the nation's long-run budgetary problems. Although the package would restrain the growth of entitlement spending from 1996 to 2006, entitlement programs would grow at the same rate as in the base scenario after 2006. In addition, the growth of discretionary spending would be sharply restricted from 1996 to 2006 but would grow with the economy in the long run.

What this scenario shows is that balancing the budget by 2002 would bring about a major reduction in the long-term budgetary imbalances in the United States, but it would not be enough to extricate the nation from the looming budgetary quagmire (see Table 4-9). Although the budget would remain close to balance for another 10 years or so, the demands of the retired baby boomers on the Social Security, Medicare, and Medicaid programs during the 2020s would significantly increase annual budget deficits. By 2030, federal debt would climb to 67 percent of GDP and would grow rapidly thereafter. By 2050, it would exceed levels that the economy could reasonably support. That situation obviously would be much better than what would result under the base scenario, but it would still command attention.

The second policy package is based on assumptions similar to those that the Administration used in its long-term projections of the President's policy. The package assumed that the budget would be balanced by 2002 with one-time changes to spending and revenues but that, in addition, the growth of Medicaid outlays would be restricted after 2006 so that it did not exceed the rate of growth of the economy. (Compared with the base scenario, the cap on Medicaid spending would be quite stringent and could be difficult to maintain in the face of an aging population and growing demands for nursing home care. Indeed, in recent years, per capita expenditures for elderly Medicaid beneficiaries have been about six times the level for children and other nondisabled adults receiving Medicaid assistance. Without the cap, Medicaid spending is projected to grow, on average, about 2 percentage points faster than GDP each year from 2006 to 2030.) At the same time, discretionary spending would be limited: rather than growing with the economy, it would be allowed to increase at the rate of inflation. Under that policy package, the budget would remain close to balance for another 20 years or so, and the ratio of debt to GDP would gradually shrink over that period. Still, the increasing pressure from the baby boomers would eventually push the budget out of balance, and federal debt would grow from 16 percent of GDP in 2020 to 26 percent in 2030 and 87 percent in 2050.

CBO is more pessimistic than the Administration about the long-term implications of this policy package. Yet apart from interest costs, the differences between CBO's and the Office of Management and Budget's projections are relatively unimportant. Both agencies project a primary surplus under this policy in the early years. That surplus disappears, however, and as a result of a buildup of debt and rising interest rates, interest costs begin to climb quickly. Because the Administration holds interest rates constant, interest costs remain lower in its projections than in CBO's.

The Benefits of Acting Soon

Timing is an important factor in dealing with the nation's budgetary problems. The federal deficit has fallen substantially as a share of GDP from its level in the early 1990s, and it is now lower than the deficit shares of many other developed countries. But that temporary phenomenon should not lull people into believing that no problem exists. The pressures of an aging population and rising health care costs will become severe in just a few years.

The stakes get higher when the baby boomers begin to retire. At that point, the budget deficit will begin to mount rapidly if no change in policy has occurred. Delaying action until then would add increasing amounts to the debt to be serviced and cor-

Table 4-9.
Projections of Federal Receipts and Expenditures, Using Alternative Assumptions About Policy and Incorporating Economic Feedbacks, Calendar Years 1995-2050 (As a percentage of GDP)

	Preliminary 1995[a]	2000	2005	2010	2015	2020	2025	2030	2050
Policy Package I: Balance the Budget by 2002[b]									
NIPA Receipts	20	20	20	20	20	20	20	20	n.c.
NIPA Expenditures									
Federal consumption expenditures	6	5	4	4	4	4	4	4	n.c.
Transfers, grants, and subsidies									
Social Security	5	5	5	5	5	6	6	7	n.c.
Medicare	3	3	3	4	5	5	6	7	n.c.
Medicaid	1	1	2	2	2	2	3	3	n.c.
Other	5	4	4	4	4	4	4	4	n.c.
Net interest	3	3	2	1	1	1	2	3	n.c.
Total	23	21	19	20	21	23	25	28	n.c.
NIPA Deficit	2	1	-1	0	1	2	5	7	n.c.
Debt Held by the Public	51	49	38	29	26	31	45	67	n.c.
Primary Deficit[c]	-1	-2	-3	-2	-1	1	2	3	n.c.
Policy Package II: Balance the Budget by 2002, Limit Discretionary Spending, and Slow the Growth of Medicaid[d]									
NIPA Receipts	20	20	20	20	20	20	20	20	21
NIPA Expenditures									
Federal consumption expenditures	6	5	4	4	4	3	3	3	3
Transfers, grants, and subsidies									
Social Security	5	5	5	5	5	6	6	7	7
Medicare	3	3	3	4	5	5	6	7	7
Medicaid	1	1	2	2	2	2	2	2	2
Other	5	4	4	4	4	4	4	4	3
Net interest	3	3	2	1	1	0	1	1	5
Total	23	21	19	19	19	20	22	23	28
NIPA Deficit	2	1	-1	-1	-1	0	1	3	7
Debt Held by the Public	51	49	38	27	19	16	18	26	87
Primary Deficit[c]	-1	-2	-3	-3	-2	-1	0	1	1

SOURCE: Congressional Budget Office.

NOTES: Projections with economic feedbacks allow deficits to push up interest rates and lower the rate of economic growth. Negative deficit numbers indicate a budget surplus.

NIPA = national income and product account; n.c. = not computable (debt would exceed levels that the economy could reasonably support).

a. Consistent with the first official estimate for 1995 published on March 4, 1996.

b. Policy package I balances the budget by 2002 with one-time changes to spending and revenues.

c. The primary deficit is revenues minus noninterest outlays.

d. Policy package II balances the budget by 2002 and, after 2006, slows the growth of Medicaid to the rate of growth of GDP and limits the growth of discretionary spending to the rate of inflation.

respondingly raise interest costs. As those costs rose, efforts to balance the budget would have to cut the growth of spending more deeply or increase taxes more steeply. Postponing difficult decisions now will make the choices that have to be made later even harder.

Other considerations also argue for attacking this problem now. If changes in entitlements for the elderly are to be part of the solution, those changes should be announced well before they take effect. Entitlement programs for elderly people are generally viewed as long-term arrangements between the government and the citizenry, who have structured their behavior based on current provisions of the law. Deciding soon on any future changes in such programs and making gradual shifts in spending and tax policies would give people more time to plan and adjust their saving behavior accordingly during their working years. By increasing their saving now, today's workers would be in a much better position to finance their retirement with less support from the government. Moreover, as national saving increased, the private sector would grow stronger, capital investment would expand, and wages would rise.

Conclusion

The economic benefits of achieving budget discipline in the United States are potentially massive. The retirement of the baby-boom generation beginning in about 2010--and the rapidly rising expenditures per beneficiary for Medicare and Medicaid--will place increasing pressure on the federal budget. Those fiscal demands could produce unsustainably high levels of federal debt unless additional actions are taken to control federal spending. Scaling back entitlements for the elderly, taking measures to limit other kinds of spending, and raising taxes are possible approaches to achieving that restraint. If cuts are to be made in the growth of entitlement programs for the elderly, making such decisions sooner rather than later is both fairer and more effective. Making those decisions now would give people time to adjust their plans. By contrast, waiting until the baby-boom generation was ready to retire could be extremely disruptive. CBO will discuss options for limiting the growth of Social Security and Medicare in a chapter of its forthcoming report *Reducing the Deficit: Spending and Revenue Options*.

Balancing the budget by 2002--but not addressing the factors that cause the deficit to increase in later years--would improve the budget outlook but not fully eliminate the imbalances that threaten the economy over the long term. (The converse is also true: measures that make a big difference to the long-run outlook might have little short-run impact on the deficit--and perhaps might even raise deficits temporarily.) The outlook for the economy will, of course, depend on how policymakers lower the deficit. Other things being equal, the economic benefits would be smaller if the deficit was reduced by raising marginal tax rates on labor or capital or by making cuts in productive government investments.

But those considerations should not obscure the fundamental importance of resolving the budgetary problems that are rapidly coming into focus on the long-term economic horizon. Although alternative deficit reduction packages would have different effects, those differences are much smaller than the economic benefits that any such package would bring. The estimates in this chapter are inherently uncertain, but one thing should be clear: doing nothing about the deficit indefinitely is not a feasible option.